WORK AUTHORIZATION

Statement of Work (SOW)
San Jacinto River Waste Pits

CERCLIS No.: TXN000606611 Site ID: 06ZQ December 14, 2017

1.0 PURPOSE. The purpose of this Work Authorization issued to the Mississippi Valley Division of the United States Army Corps of Engineers (USACE) under multi-site Interagency Agreement DW-96-95854901-0 between the Environmental Protection Agency (EPA) and the USACE is to provide technical support to EPA regarding the preparation of a remedial design by the site Potentially Responsible Parties. This technical support includes participation in one or more workgroup meetings by persons with significant expertise in construction "best management practices" (BMPs) in Dallas, Texas, and developing a follow-up report assessing the relative merits and constructability of applicable BMPs, including recommendations of the optimum BMPs.

2.0 BACKGROUND. The Site consists of several waste ponds, or impoundments, built in the mid-1960s for the disposal of paper mill wastes as well as the surrounding areas containing sediments and soils potentially contaminated by the waste materials that had been disposed of in these impoundments. The impoundments are located immediately north and south of the I-10 Bridge and on the western bank of the San Jacinto River in Harris County, Texas (see Figure 1).

Large scale groundwater extraction by others has resulted in regional subsidence of land in the vicinity of the Site resulting in exposure of the contents of the northern impoundments to surface waters. A time-critical removal action was completed in 2011 to stabilize the pulp waste material in the northern impoundments and sediments within the impoundments to prevent the further release of dioxins, furans, and other chemicals into the environment. The removal consisted of placement of a temporary armor rock cap covering 15.7 acres over a geotextile bedding layer and an impermeable geomembrane in some areas. The cap was designed to withstand a 100-year storm event, but has experienced repair events that have continued to the current time, and an adjacent riverbed scour event, since it was completed.

The southern impoundments are located south of I-10 and west of Market Street, where various marine and shipping companies have operations (see Figure 1). The area around the former southern impoundments is an upland area that is not currently in contact with surface water.

The members of the Project Delivery Team (PDT) listed in Section 2.2 below have provided technical assistance to the Site's Remedial Project Managers (RPM) for the past four years that consisted of 1) an evaluation of modeling performed by the PRP's modeling contractor, 2) review and comment on the draft Feasibility Study, 3) an evaluation of the design of the temporary armor cap, and 4) an assessment of the causes of a 400 square foot underwater area where the dioxin waste was exposed to the San Jacinto River.



Figure 1: San Jacinto River Waste Pits Superfund Site

2.1 PROJECT POINT OF CONTACT (POCs).

Technical POC: Gary Miller, EPA Region 6, 1445 Ross Avenue, Suite 1200, Dallas, Texas 75202, Remedial Project Manager, 214-665-8318.8375 miller.garyg@epa.gov

Financial POC: LaMonica Collins, EPA Region 6, 214-665-6611. collins.lamonica@epa.gov

2.2 PROJECT DELIVERY TEAM.

Technical POCs: Paul Schroeder CEERD-EPE, Research Civil Engineer, 601-634-53709. Paul.R.Schroeder@erdc.dren.mil

Financial POC: Jamie Middleton CEERD-EVB, 601-634-2618, Jamie.S.Middleton@usace.army.mil

3.0 SCOPE OF WORK. This section outlines the tasks that the PDT will perform to accomplish the requirements described in EPA's Work Authorization.

- 1. Lead/participate in one or more workshop(s) with EPA, Potentially Responsible parties, and others regarding best management practices for application to the San Jacinto River Waste Pits Remedial Design.
- 2. Document the results of the workshop(s) in a memorandum(s).
- 3. The best management practices may include, but not be limited to, the following:
 - a. Alternatives for isolation of the waste pits (cofferdams, sheetpiles, berms, etc.) to allow excavation in the "dry".
 - b. Alternatives for de-watering the waste pits.
 - c. Alternatives for water treatment to meet the Texas Surface Water Quality Standard for dioxin and discharge into the San Jacinto River.
 - d. Alternatives for excavation and removal of the paper mill waste material in consideration of the wet and low load-bearing capacity of the soils.
 - e. Alternatives for transportation and disposal of the paper mill waste material.
 - f. Requirements for waste characterization and treatment for disposal.
 - g. Access considerations in light of the pipeline right-of-way in the area.
 - h. Consideration of alternatives to perform excavation while minimizing the potential impacts of storms and hurricanes.
 - i. Identification of sampling, geotechnical, and/or other investigations required to accomplish the above activities.
- 4. Prepare a draft Statement of Work to perform a Remedial Design using the EPA model AOC Statement of Work as a starting point and incorporating the best management practices identified above.

4.0 DELIVERABLES.

- 1. Submit progress reports and invoices to the EPA RPM for each month no later the 15th day of the following month.
- 2. Lead the BMP workshop(s) in Dallas, TX at dates to be determined and submit a draft and final BMP report(s) to EPA within one month following EPA comment on the draft.
- 3. Provide technical support to EPA, including preparation of technical memorandums and Draft Statement of Work regarding the above issues during the Period of Performance.

5.0 EPA RESPONSIBILITIES. EPA is responsible for providing the necessary comments and documents to ERDC. The work cannot begin until this is delivered.

6.0 USACE TECHNOLOGY/FOCUS AREA. ERDC-EL, Environmental Processes and Engineering.

7.0. PERIOD OF PERFORMANCE. It is anticipated that this Work Authorization will cover a time interval of approximately 12 months, or until December 13, 2018.

8.0 SECURITY. Information produced in this study is unclassified.